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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:)
David H. Palmer) Group Art Unit: 3611
)
Serial No. 10/666,173) Examiner: Kevin Hurley
)
Filed: September 19, 2003) Appeal No.
)
For: ELONGATE RECEIVER TUBE AND) Attorney Docket: 1-37091
 METHOD OF MAKING THE SAME)

August 1, 2005

Mail Stop Appeal Brief - Patents
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

BRIEF ON APPEAL

Honorable Sir:

This is an Appeal from the action of the Examiner dated March 15, 2005, finally rejecting Claims 1, 2, 4, 6, and 7 in the above-identified patent application. Appellant has filed a Notice of Appeal, which has an effective date of June 13, 2005. This Brief on Appeal is being filed under the provisions of 37 CFR §41.37.

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The Commissioner is hereby authorized to charge \$250.00 to Dep. Acct. No. 50-3156. A decision on whether to request an oral hearing will be delayed until after the Examiner's Answer has been received.

REAL PARTY IN INTEREST

The inventor, David H. Palmer, has assigned all rights in the invention and instant application to Jems of Litchfield, the real party in interest.

RELATED APPEALS AND INTERFERENCES

There are no other appeals or interferences which will directly affect, or be directly affected by, or have a bearing on, the Board's decision in this pending appeal.

STATUS OF CLAIMS

Claims 1, 2, 4, 6, and 7 are pending in the application and are being appealed herein.

STATUS OF AMENDMENTS

There are no amendments pending in the application.

SUMMARY OF CLAIMED SUBJECT MATTER

Appellant's invention, as set forth in Claim 1, is directed to an elongate receiver tube for a trailer hitch assembly. The inventive elongate receiver tube comprises the following:

- A) a hollow elongate tube having an internal rectangular cross-section and having a first end adapted to receive a trailer hitch bar having a complimentary outer rectangular cross-section, (page 4, lines 4-19; Figs. 1-3)
- B) the first end of said tube having an integral reinforcement construction wherein the first end of said tube is provided with an outwardly extending fold formed of substantially two thicknesses of the tube, (page 4, line 20 through page 5, line 6; Figs. 1-3)
- C) wherein the outermost end portions are folded against one another by a cold forming process to form a peripheral outwardly extending fold at the first end of said tube, (page 4, line 20 through page 6, line 15; Figs. 1-3)
- D) the fold having an inner dimension which is substantially the same as an inner dimension of said tube and an outer dimension greater than an outer dimension of said tube, (page 5, lines 2-6; Fig. 3)
- E) wherein the fold has a rounded outer surface. (Amendment dated January 14, 2005; Figs. 1-3)

Claim 2 depends from and contains at least the same features and limitations as Claim 1.

Independent Claims 4 and 6 contain at least the same features and limitations as Claim 1.

Claim 7 depends from and contains at least the same features and limitations as Claim 6.

GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

Issue I:

Whether an amendment filed January 14, 2005 introduces new matter into the disclosure under 35 USC §132.

Issue II:

Whether Claims 1, 2, 4, 6, and 7 are unpatentable under 35 USC § 112, first paragraph, as failing to comply with the written description requirement.

Issue III:

Whether Claims 1, 2, 4, 6, and 7 are unpatentable under 35 USC §102(e) as being anticipated by U.S. Pat. No. 6,408,672 to Roe et al.

Issue IV:

Whether Claims 1, 2, 4, 6, and 7 are unpatentable under 35 USC §102(b) as being anticipated by U.S. Pat. No. 5,203,194 to Marquardt.

GROUPING OF CLAIMS

All claims stand or fall together.

ARGUMENT I

The Examiner objected to an amendment filed January 14, 2005 under 35 U.S.C. § 132 as introducing new matter. The Examiner stated:

"The added material which is not supported by the original disclosure is as follows: That the reinforcement flange is rounded or orbicular or protuberant, for example. Moreover, the specification does not support the recitation that the fold has a substantially rounded outer surface as previously recited in claim 3, now canceled.

Applicant is required to cancel the new matter in the reply to this Office Action."

In the originally filed parent patent application filed on March 12, 2002, from which priority is claimed, the flange of the tube illustrated in the drawings included a rounded outer surface. The rounded outer surface, generally depicted by the reference numeral 26, is clearly illustrated in each of Figs. 1, 2, and 3 of Appellant's patent application. The shading lines shown in Figs. 1 and 2 provide irrefutable evidence that the flange includes a rounded, orbicular, or protuberant outer surface. 37 CFR §1.84(m) states in part:

The use of shading in views is encouraged if it aids in understanding the invention and if it does not reduce legibility. Shading is used to indicate the surface or shape of spherical, cylindrical, and conical elements of an object.

Contour lines and shading lines would not have been used in the manner shown if the surface was intended to be flat or planar, instead of rounded, orbicular, or protuberant.

The rounded outer surface is especially apparent in Fig. 3. It is indisputable, especially in view of Fig. 3, that the outer surface shown is rounded, orbicular, or protuberant. Had a linear or straight surface been intended on the drawing, it would have been drawn as such. Drawing a straight line and drawing a curved line require different drawing instruments. Thus, a conscious effort on the part had to have been made to draw the curved line representing the

rounded, orbicular, or protuberant surface. The contour lines or shading lines shown in Figs. 1 and 2 also evidence this intent.

Since the rounded surface was drawn as such in each and every figure, the information is part of the original disclosure and does not constitute new matter. Section 2163.06 of the MPEP states in part:

“. . . information contained in any one of the specification, claims, or drawings of the application as filed, may be added to any other part of the application without introducing new matter.” (emphasis added)

Since the rounded outer surface is clearly shown in the drawings as filed, amendment of the specification to include reference to the rounded shape and a recitation thereof in the claims is proper and does not introduce new matter. Thus, the rounded outer surface of the flange was fully supported by the original disclosure.

Since the rounded outer surface is supported by the original disclosure and does not constitute new matter, the objection of the Examiner is improper.

ARGUMENT II

The Examiner rejected Claims 1, 2, 4, 6, and 7 under 35 U.S.C. §112, first paragraph, and stated:

“The claims contain subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor, at the time the application was filed, had possession of the claimed invention. The originally filed specification does not support the recitation that the fold has a substantially rounded outer surface.”

The specification was amended in the Amendment filed January 14, 2005 to include the description “The folded thicknesses 28, 30 result in an outer peripheral surface of the reinforcement flange 26 which is rounded as most clearly shown in Figs. 2 and 3. Rounded as used herein means orbicular or protuberant, for example.” As discussed above, the inclusion of this description is proper and cannot be considered new matter since the rounded outer surface of the flange is clearly shown in Figs 1-3 as originally filed.

Since the recitation of the rounded, orbicular, or protuberant does not constitute new matter, the rejection based on 35 U.S.C. §112, first paragraph, is improper.

ARGUMENT III

The disclosure of Roe is clearly directed to a flange having an outer surface with a predetermined shape. The shape of the outer surface portion of the flange of Roe is rectangular in cross section, having straight or linear sides. Figs. 3d and Figs 4d of Roe, which clearly show the shape of the outer surface portion of the flange, are included below.

FIG. 3d.

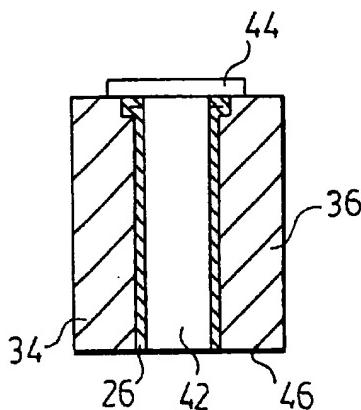
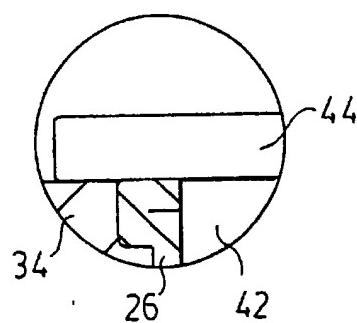


FIG. 4d.



Roe further discloses in column 3, lines 19-40, that the tube material used to form the receiver tube is forced, by a pressure applied thereto, into the void space 41 until it has completely folded upon itself and occupies the void space. In order to completely fill the void space, the volume of the void space is calculated. Then, the volume of tube material required to completely fill the void space is measured. The amount of material required to completely fill the void space remains outside of a die cavity prior to a forming operation. During the forming operation, the material is forced to fold upon itself and fill the void space. An adjustment is made in the preferred embodiment for a compression of the tube material in the

void space.

When the tube material is forced into and compressed in the void space, the outer surface of the flange of Roe is determined by the shape of the void space. Therefore, since the void space has a rectangular shape in cross section, with straight or linear sides, the outer surface of the flange has a rectangular shape in cross section, with straight or linear sides. No curvature exists. The outer surface of the flange is not rounded, orbicular, or protuberant to any degree, let alone to the same degree as Appellant's structure as indicated by the Examiner. Quite simply, the tube material of Roe is compressed into the void space and takes the shape of that void space, which is rectangular in cross section with straight or linear sides.

Additionally, in the March 15, 2005 Office Action, the Examiner argues that Fig. 2 of Roe is virtually identical to Fig. 3 of Appellant's application. This is simply not true. Fig. 2 of Roe and Fig. 3 of Applicants patent application are included below.

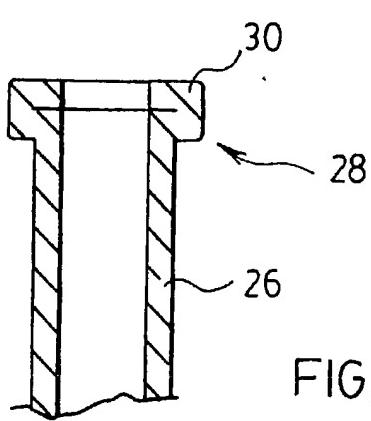


FIG. 2.

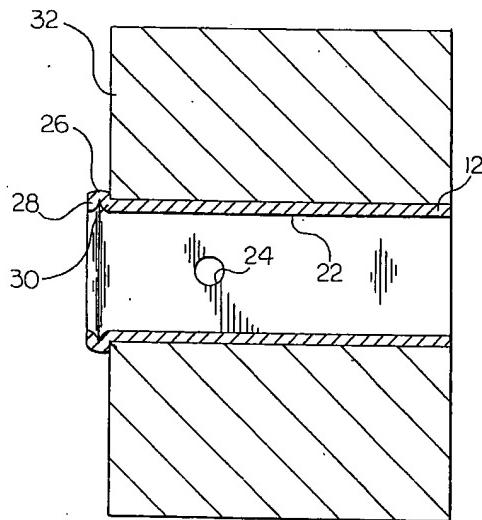


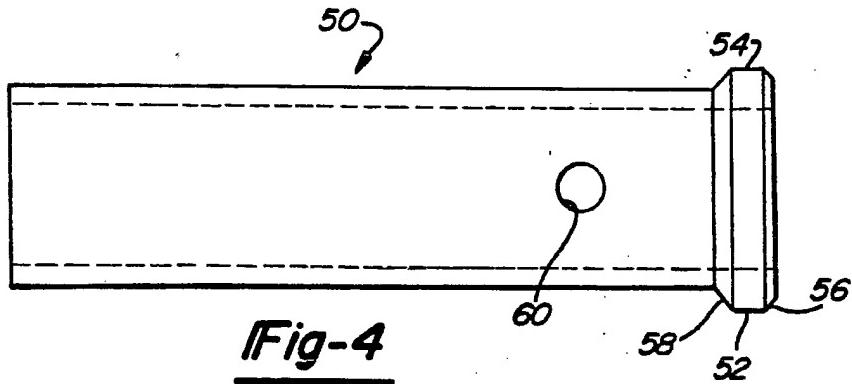
FIG. 3

The outer surface shown in section in Roe is clearly linear, and the outer surface shown in section in Appellant's Fig. 3 is clearly rounded. It is unclear how the outer surfaces can be considered identical. The receiver tubes are formed by different processes resulting in different structures having different shapes.

Due to the structural differences noted, it is submitted that independent Claims 1, 2, 4, 6, and 7 are not anticipated under 35 USC §102(e) by Roe.

ARGUMENT IV

The argument presented for against Roe also applies to Marquardt. The disclosure of Marquardt is directed to a flange having an outer surface with a predetermined shape, determined by a bead forming region 66. The shape of the outer surface portion of the flange of Marquardt includes a main portion which is distinctly linear or straight and not rounded, orbicular, or protuberant. There is no degree of curvature to the surface. Straight or linear inclined portions flank opposing sides of the main linear or straight portion. Fig. 4 of Marquardt, which clearly shows the shape of the outer surface portion of the flange, is included below.



Similar to Roe, the shape of the outer surface of the flange is determined by a recess into which the tube material is forced. The recess includes linear or straight edges. Thus, the surface of the flange formed therefrom cannot be rounded, orbicular, or protuberant, and is clearly not rounded, orbicular, or protuberant to the same degree as claimed by applicant. No curvature exists.

CONCLUSION

An amendment filed January 14, 2005 did not introduce new matter. Therefore, the outstanding objection of the Examiner should be reversed by the Board.

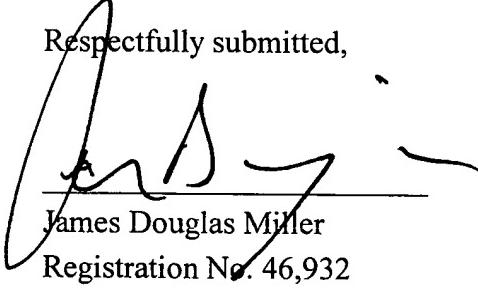
Claims 1, 2, 4, 6, and 7 comply with the written description requirement under 35 USC § 112, first paragraph. Thus, the Examiner's outstanding final rejection of Claims 1, 2, 4, 6, and 7 should be reversed by the Board.

Claims 1, 2, 4, 6, and 7 are not anticipated by U.S. Pat. No. 6,408,672 to Roe et al., and the Examiner's outstanding final rejection of Claims 1, 2, 4, 6, and 7 should be reversed by the Board.

Claims 1, 2, 4, 6, and 7 are not anticipated by U.S. Pat. No. 5,203,194 to Marquardt. Therefore, the Examiner's outstanding final rejection of Claims 1, 2, 4, 6, and 7 should be reversed by the Board.

Accordingly, Appellant respectfully submits that Claims 1, 2, 4, 6, and 7 should be allowed.

Respectfully submitted,


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APPENDIX

1. An elongate receiver tube for a trailer hitch assembly comprising:
a hollow elongate tube having an internal rectangular cross-section and having a first
end adapted to receive a trailer hitch bar having a complimentary outer
rectangular cross-section, the first end of said tube having an integral
reinforcement construction wherein the first end of said tube is provided with an
outwardly extending fold formed of substantially two thicknesses of the tube,
wherein the outermost end portions are folded against one another by a cold
forming process to form a peripheral outwardly extending fold at the first end of
said tube, the fold having an inner dimension which is substantially the same as
an inner dimension of said tube and an outer dimension greater than an outer
dimension of said tube, wherein the fold has a rounded outer surface.

2. The receiver tube according to Claim 1, wherein the fold has a flat face spaced from
the first end of said tube formed against an outer wall of the clamp.

4. An elongate receiver tube for a trailer hitch assembly comprising:
a hollow elongate tube having an internal rectangular cross-section and an external
rectangular cross-section, said tube having a first end adapted to receive a trailer
hitch bar having a complimentary outer rectangular cross-section to be slidably
received in the internal rectangular cross-section of said tube, the first end of
said tube having an outwardly extending flange portion formed by a cold
forming process, the flange provided with an outwardly extending fold formed
of substantially two thicknesses of the tube, the flange portion having an inner
dimension which is substantially the same as an inner dimension of said tube
and an outer dimension greater than an outer dimension of said tube, wherein
the flange portion has an orbicular outer surface.

6. An elongate receiver tube for a trailer hitch assembly comprising:
a hollow elongate tube having an internal rectangular cross-section and an external
rectangular cross-section, said tube having a first end adapted to receive a trailer
hitch bar having a complimentary outer rectangular cross-section to be slidably
received in the internal rectangular cross-section of said tube, the first end of
said tube having a fold with a protuberant outer surface, the fold formed by a
cold forming process, the fold formed of substantially two thicknesses of the
tube, the flange portion having an inner dimension which is substantially the
same as an inner dimension of said tube and an outer dimension greater than an
outer dimension of said tube.

7. The receiver tube according to Claim 6, wherein a side of the fold facing away from
the first end has a flat face formed against a wall of the clamping structure, the wall being
external of the clamping structure.